CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE

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$24 Million in New Stem Cell Research Funding Awarded to 25 California Institutions

- Grants to Help Create New Stem Cell Lines and Drive Research on Specific Diseases -

SAN FRANCISCO, Calif., June 27, 2008—The governing board of the California Institute for Regenerative Medicine (CIRM), the state's stem cell agency, today awarded $24 million under two separate grant programs; one that will fund research for the development of new lines of pluripotent human stem cells, and the other that will fund the planning stages of an innovative model for research teams that will collaborate on therapies for a specific disease or injury.

New Cell Lines Awards

The CIRM New Cell Lines Awards support the derivation and propagation of new lines of pluripotent human stem cells with important research and clinical application for understanding, diagnosing and treating serious injury and disease. $23 million in funding for a total of 16 grants were approved at today's meeting.

The New Cell Lines Awards support two categories of research and give particular consideration to research that cannot be currently funded by federal programs:

- Derivation of new human embryonic stem cell lines using excess or rejected early-stage human embryos generated by *in vitro* fertilization.

- Derivation of pluripotent human stem cell lines from other sources using alternative methods such as, but not limited to, somatic cell nuclear transfer (SCNT) or reprogramming of neonatal or adult cells (iPS cells).

To ensure that research moves forward in all of the areas that have potential to deliver medical advances to patients, the grants support research across the spectrum of approaches used to derive pluripotent stem cell lines, including the well-established means of human embryonic stem cells, which remain the gold standard for research into pluripotent cells, as well as new technologies such as iPS.

"Ultimately, our goal is to apply the knowledge gained in basic research towards treatments and cures for patients" stated Dr. Alan Trounson, president of CIRM. "Pluripotent stem cells play a key

role in developing stem-cell based therapies because of their unique ability to renew themselves and their potential to form almost all of the cell types of the body. As such, derivation of new human embryonic stem cell lines is a priority for both basic and translational research that could be the foundation for advancing new therapies."

Disease Team Planning Grants

Separately, the ICOC awarded 22 grants totaling $1.1 million to support multi-disciplinary teams of scientists in pursuit of therapies for specific diseases. The Disease Team Planning grants provide relatively modest grants to scientists who will use the funds to assemble multi-disciplinary teams that will help prepare proposals that can respond to an upcoming request for proposals for major grants for translational research that could lead to clinical trials. Ultimately, the goal is to fund the work of disease teams that would result in a therapy or diagnostic for a particular disease or serious injury.

The CIRM Disease Team Award Request for Application (RFA) will be posted in March and considered by the ICOC in June 2009. The goal of these awards is to facilitate the integration and organization of the highest quality basic, translational, and clinical research in a team setting. This innovative disease team approach has the potential to advance therapies into the clinic more rapidly. Receipt of a Disease Team Planning Grants is not a requirement for applying for a Disease Team Award.

"Since CIRM began making grants in 2006, we have been steadily advancing a scientific strategic plan, through a combination of research, training and facility grants, that establishes California as one of the most comprehensive and robust stem cell research environments in the world" stated Robert N. Klein, chairman of the governing board of CIRM. "The grants awarded today play a tremendously important role in advancing our ultimate goal of delivering new therapies and cures to Californians afflicted with a range of devastating diseases and injuries."

Other ICOC Business

In other business, Chairman Klein read into the record an official thanks to the State Controller's Office for the partnership they have extended in working with the staff at CIRM to distribute $195 million in funding of the CIRM Major Facilities grants. Earlier in the week, these funds were distributed to the eight institutions that opted to receive their funding this summer with a nine percent reduction, rather than spreading their funding over the two years it will take to build the facilities. Chairman Klein stated, "John Chiang, the state Controller, and his staff demonstrated how government can perform at its best. In recognizing how critical these research facilities are to advancing medical therapies for heart disease, blindness, diabetes, cancer and 70 other areas of chronic disease and injury, the Controller's office clearly cut substantial time out of the normal payment process to accelerate the building of these vital medical facilities."

Additionally, the ICOC voted to approve a new concept plan for a Translational 1 RFA for research that enables translation of basic stem cell research to potential clinical application. This award will support two types of early translational research including research that results in a therapy development candidate that meets an unmet medical need, and research that addresses a significant bottleneck that, if overcome, would advance effective translation of discoveries towards testing in patients. The Translational 1 RFA will be released in August 2008, with applications due in November 2008 and awarded in the Winter/Spring of 2009.

The tables below detail the grants approved at today's ICOC meeting:

New Cell Lines Awards

Application Number	Institution	PI Name	First Year Total	Total Budget
RL1-00630-1	Stanford University	Dr. Julie C. Baker	$474,804	$1,424,412
RL1-00634-1	Stanford University	Professor Michele P. Calos	$464,418	$1,406,875
RL1-00636-1	University of California, Los Angeles	Dr. Amander T. Clark	$390,048	$1,177,648
RL1-00639-1	The J. David Gladstone Institutes	Dr. Bruce R. Conklin	$569,520	$1,708,560
RL1-00644-1	University of California, San Diego	Dr. Steven F. Dowdy	$462,600	$1,387,800
RL1-00648-1	University of California, San Francisco	Dr. Susan J. Fisher	$462,372	$1,383,419
RL1-00650-1	The J. David Gladstone Institutes	Dr. Fen-Biao Gao	$569,520	$1,708,560
RL1-00660-1	University of California, San Francisco	Dr. Long-Cheng Li	$453,288	$1,375,144
RL1-00662-1	Stanford University	Professor Michael T. Longaker	$474,804	$1,424,412
RL1-00667-1	University of Southern California	Professor Martin Frederick Pera	$490,258	$1,387,508
RL1-00669-1	University of California, San Francisco	Dr. Miguel Ramalho-Santos	$417,695	$1,307,201
RL1-00670-1	Stanford University	Professor Renee Reijo Pera	$470,245	$1,410,042
RL1-00681-1	University of California, Los Angeles	Dr. Jerome Zack	$460,800	$1,382,400
RL1-00682-1	Burnham Institute for Medical Research	Dr. Zhuohua Zhang	$529,920	$1,589,760
RL1-00649-1	The Salk Institute for Biological Studies	Professor Fred H. Gage III	$579,240	$1,737,720
RL1-00678-1	University of California, Irvine	Professor Leslie Michels Thompson	$455,400	$1,369,800
			Total	**$23,181,261**

Disease Team Planning Awards

Application Number	Institution	PI Name	Total Budget
DT1-00652-1	University of California, San Francisco	Dr. Jeffrey Allen Bluestone	$55,000
DT1-00653-1	University of Southern California	Dr. David Timothy Woodley	$42,574
DT1-00656-1	University of California, San Francisco	Dr. Jeffrey Charles Lotz	$55,000
DT1-00657-1	University of Southern California	Dr. Mark S Humayun	$50,001
DT1-00659-1	The Salk Institute for Biological Studies	Samuel L. Pfaff	$54,798
DT1-00669-1	University of California, Los Angeles	Dr. Stanley Thomas Carmichael	$44,792
DT1-00671-1	The J. David Gladstone Institutes	Dr. Deepak Srivastava	$53,972
DT1-00672-1	Novocell, Inc.	Dr. Emmanuel Edward Baetge	$48,950
DT1-00674-1	Stanford University	Dr. Thomas A. Rando	$52,650
DT1-00675-1	University of California, San Diego	Dr. Lawrence S. B. Goldstein	$55,000
DT1-00683-1	University of California, Los Angeles	Professor Irvin S.Y. Chen	$52,500
DT1-00688-1	Buck Institute for Age Research	Dr. Xianmin Zeng	$55,000
DT1-00690-1	University of California, Irvine	Dr. Henry John Klassen	$37,367
DT1-00696-1	Ludwig Institute for Cancer Research	Dr. Webster K. Cavenee	$55,000
DT1-00697-1	Children's Hospital Oakland	Mark Walters	$55,000
DT1-00698-1	Cedars-Sinai Medical Center	Dr. Eduardo Marban	$46,886
DT1-00700-1	University of California, Irvine	Leslie Michels Thompson	$54,618
DT1-00701-1	Children's Hospital of Los Angeles	Donald Kohn	$33,110
DT1-00704-1	Burnham Institute for Medical Research	Professor Mark Mercola	$53,150
DT1-00708-1	Beckman Research Institute of the City of Hope	Professor Michael Edward Barish	$55,000

DT1-00709-1	University of California, San Diego	Dr. Dennis Carson	$55,000
DT1-00710-1	Stanford University	Dr. Robert C. Robbins	$55,000
		Total	**$1,120,368**

About CIRM CIRM was established in early 2005 with the passage of Proposition 71, the California Stem Cell Research and Cures Act. The statewide ballot measure, which provided $3 billion in funding for stem cell research at California universities and research institutions, was overwhelmingly approved by voters, and called for the establishment of an entity to make grants and provide loans for stem cell research, research facilities, and other vital research opportunities. To date, the CIRM governing board has approved 206 research and facility grants totaling more than $554 million, making CIRM the largest source of funding for human embryonic stem cell research in the world. For more information, please visit www.cirm.ca.gov.